

ABSTRACT

U900 or UMTS (Universal Mobile Telecommunications Systems) 900 MHz frequency use is used in UMTS networks. Based on the 3GPP rules per year 2005 addition of 2 g 900 MHz frequency can be used in 3 g networks. Usefulness of U900 3 g bandwidth capacity is improving, wider coverage as well as the benefits, i.e. offers U900 speed data in a room by 50% compared to the frequency of 2100 MHz. Overbooking is a Calculation value that is used to view a device transmitting BTS still ideal in dealing with traffic or not. By looking at the total traffic per site for all good 3 g network U900, 3 g, and LTE device and a capacity of each site, then we can calculate by using the overbooking. With the growing number of 3g users in Jakarta then strongly supported by the development community, because the U900 is largely already switched to the use of the data. From the discussion above mentioned thesis was conducted to analyze the value of overbooking on U900 network, 3 g and LTE BASE STATIONS use the method of overbooking calculation to meet availability capacity devices with data services. In this thesis the analysis done by taking some data site area New data, both Pisangan traffic, data capacity as well as any other data. will be analyzed later about how the traffic as well as the recommended capacity based on the result of overbooking. From the results of the calculation of the OB at 5 MHz bandwidth, there are 2 site requires a 300 Mbps upgrade, 5 site need an upgrade 500 Mbps and 1 site need an upgrade of 600 Mbps. And there are 3 sit at will be on reroute. For the calculation of the OB on the bandwidth of 10 MHz, by increasing the traffic of the 75 Mbps LTE, there are two sites that overloaded traffic, from the calculation of the OB then there are 2 sites that need an upgrade of 600 Mbps, and 2 sites last mailed aggregate 3112 experienced reroute and to plan with a bandwidth of 15 MHz with 100 Mbps LTE into traffic, based on a calculation of the OB then there are 3 sites that need an upgrade of 600 Mbps again, the device is ideal. And there are two sites are redirected to the main site.

Keyword : U900, overbooking calculation, bandwidth, capacity